

FAIRCHILD DORNIER

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Airworthiness Office

DEPT OF TRANSPORTATION

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Ref.: DOR.L.EZ2-0001/01
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**Subject: Improved Flammability Standards for Thermal/Acoustic Insulation Materials
Used in Transport Category Airplanes**

Here: Comments to NPRM

Ref: Docket No. FAA-2000-7909

Dear Sirs,

In general, Fairchild Dornier supports the proposed amendments, but would like to draw your attention to the following:

1. Proposed § 25.856

§ 25.856 requires that „insulation materials (including the means of fastening the materials to the fuselage)“ should be tested according to part VII of appendix F. In contrast, part VII (c)(3)(iv) does not allow the use of the actual means of fastening, but requires the use of 12 steel spring type clamps during the test. The positions of the clamps are also fixed.

Compliance with both requirements is only possible by using this specific way of fastening the blankets in the actual aircraft design what would increase weight and costs. We do not suppose that it is the intention of the proposed rule to restrict the fastener design like this and would appreciate if you revised part VII to explicitly allow the use of other numbers and types of fasteners, too as required in § 25.856.

2. It is unclear why section „Current Regulations Pertinent to Thermal/Acoustic Insulation Materials“ of the NPRM refers to regulations for passenger compartments. It is our understanding that any compartment ends at its walls or liners and that the terms compartment or compartment interior do not include whatever may be beyond these liners. So we do not consider regulations that apply to specific compartments as applicable to materials that are used behind these compartments' liners, like insulation behind cabin

Signature

Page 1 of 2

FAIRCHILD DORNIER

liners.

3. Burnthrough Resistance Duplication

§ 25.855: „Ceiling and sidewall liner panels of Class C and D compartments must meet the test requirements of Part III of Appendix F“. This requirement already provides for burnthrough resistance of these liners equivalent to the proposed Part VII. The addition of another burnthrough layer like thermal/acoustic insulation would rise cost and weight without a perceptible safety improvement. Unlike what is said in the discussion of the proposed rule, burnthrough resistance of the insulation system does add weight and cost. In our design the burnthrough resistance is achieved by a separate ceramic foil that weighs 80g/m² and could be left away wherever it is not required. We would appreciate if the proposed rule exempted insulation behind compartment liners from Part VII where the liners comply with Part III and think that this would allow cost and weight savings without safety restrictions.

4. Applicability

The discussion in the NPRM shows that the proposed rule, especially the burnthrough requirement, is intended for „primary“ insulation blankets on the fuselage skin panels. This is not properly reflected in § 25.856 and in the extensive definition of thermal/acoustic insulation in Part VI (a)(1). According to this definition, the proposed rule requires compliance with Part VII for any acoustic protection, thus including additional acoustic damping foils like those installed between cabin floor panels and carpet in the Do 328-300, for example. These foils provide noise reduction in addition to the thermal/acoustic insulation blankets on the entire circumference of the fuselage skin. To require burnthrough resistance for such additional acoustic damping foils is beyond the intention and justification of the proposed rule. The term thermal/acoustic insulation itself and/or its definition should be reviewed to make sure that the applicability of the rule will be as limited as intended.

5. Printing error

Appendix F part VI(b)(2)(ii) should read 30° instead of 30\$.

Best regards

Fairchild Dornier GmbH
Airworthiness Office

Krook

Hayner